

## PATENT COOPERATION TREATY

CORRECTED VERSION

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 22 JUN 2004

WIPO

PCT

Applicant's or agent's file reference PCTAU0201594:MLT:GP		<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No.  PCT/AU2002/001594	International Filing Date (day/month/year) 27 November 2002	Priority Date (day/month/year) 27 November 2002	
International Patent Classification (IPC) or national classification and IPC  Int. Cl. <sup>7</sup> C07C 67/08, 69/34			
Applicant  BIODIESEL AUSTRALIA Pty Ltd et al			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 14 May 2004	Date of completion of the report 3 June 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  K. LEVER Telephone No. (02) 6283 2263

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-13	YES
	Claims	NO
Inventive step (IS)	Claims 1-13	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-13	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)****EP 249,463 A2 (BIO- ENERGY TECHNOLOGY LTD)**

This document discloses a process similar to that of the current invention where a bio-fuel is produced from a triglyceride containing substance like vegetable and seed oils. Firstly an acid catalyst in an alcohol environment is added to the triglyceride substance affecting an esterification of the free fatty acids to methyl esters.

In the next step a basic catalyst dissolved in alcohol is added to achieve further esterification. Finally Phosphoric acid and a washing mixture added to allow separation of the phases. The ester phase can then be removed. There is also a optional step after the second esterification where glycerol is removed.

This process differs from the one of the current invention in that it does not require the washing step and that the alcohol is removed by distillation after the second esterification. The current process also avoids the production of the by-product glycerol.

**AU 80742/91 A1( VOGEL & NOOT INDUSTRIEANLAGENBAU GESELLSCHAFT M.B.H)**

This document also discloses an esterification process of fatty acids in the presence of alcohols and a basic catalyst. However there is no esterification with an acid catalyst. This process also requires the step to separate out the glycerol produced as a by-product.

Thus it is considered that the claims are Novel, involve an Inventive Step and are Industrially Applicable.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2002/001594

## VI. Certain documents cited

## 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date. ( valid claim) (day/month/year)
AU 44481/02	5 December 2002	31 May 2002	31 May 2001

This document while published after the filing date of current application has an earlier priority date and will be relevant under Australian Law, there are no other foreign equivalents.

## 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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